

# Mineral Industry Surveys

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## LEAD IN FEBRUARY 2011

Domestic mine production (recoverable) of lead in February was 27,900 metric tons (t), according to the U.S. Geological Survey. Average daily mine production in February was 998 t, slightly higher than that in January 2011 and slightly higher than that in February 2010. Secondary refinery production of lead in February decreased by 6% from that of the previous month and was slightly higher than that of February 2010.

Total imports of lead for consumption in January 2011 were slightly higher than those in the previous month and 21% greater than those in January 2010. Total exports of lead, exclusive of scrap, in January 2011 were 68% lower than those in the previous month. Exports of lead contained in ore and concentrates declined by 82% when compared with those in December 2010, partially owing to reduced shipments to China in January 2011. Exports of spent lead-acid batteries increased by 17% from those in December 2010. Mexico was the destination for nearly 90% of the 15.3 million spent lead-acid batteries exported in 2010.

According to Platts Metals Week, the average North American producer price for lead in February 2011 was \$1.21 per pound, essentially unchanged from that of the previous month and 10% higher than that in February 2010. The London Metal Exchange (LME) cash price of lead in February 2011

averaged \$2,586 per metric ton, down slightly from that of the previous month and 22% higher than that in February 2010. Global LME lead stocks at the end of February 2011 were 293,850 t, 4% higher than those at the end of January 2011 and 76% greater than those at month-end February 2010.

In February, North American shipments of replacement lead-acid batteries for automobiles decreased by 9% to 8.51 million units from 9.30 million units in January 2011. Shipments of replacement lead-acid batteries were 26% greater than those of February 2010. Total North American shipments of original equipment (OE) lead-acid batteries for automobiles increased by 12% to 1.29 million units from 1.15 million units shipped in January 2011. Shipments of OE lead-acid batteries were 14% greater than those of February 2010. Year-to-date, total North American shipments of lead-acid batteries increased by nearly 14% compared with those during the same period in 2010 (Battery Council International, 2011).

## Reference Cited

Battery Council International, 2011, BCI 2011 monthly shipment report: Chicago, IL, Battery Council International, April 6, 4 p.

TABLE 1  
SALIENT LEAD STATISTICS IN THE UNITED STATES<sup>1</sup>

(Metric tons, lead content, unless otherwise specified)

|  | 2010              |                  | 2011                 |          |                     |
|--|-------------------|------------------|----------------------|----------|---------------------|
|  | Year <sup>p</sup> | January-February | January              | February | January-February    |
| Production:  |                   |                  |                      |          |                     |
| Mine (recoverable)   | 365,000           | 60,200           | 30,400               | 27,900   | 58,300              |
| Secondary refinery:  |                   |                  |                      |          |                     |
| Reported by smelters/refineries                                    | 1,120,000         | 187,000          | 100,000 <sup>r</sup> | 94,000   | 194,000             |
| Estimated  | 13,000            | 1,870            | 1,000 <sup>r</sup>   | 940      | 1,940               |
| Recovered from copper-base scrap <sup>e</sup>                      | 15,000            | 2,500            | 1,250                | 1,250    | 2,500               |
| Total secondary  | 1,140,000         | 191,000          | 102,000 <sup>r</sup> | 96,200   | 198,000             |
| Consumption:   |                   |                  |                      |          |                     |
| Reported   | 1,360,000         | 230,000          | 116,000              | 114,000  | 231,000             |
| Undistributed <sup>e</sup>   | 40,900            | 6,900            | 3,490                | 3,430    | 6,920               |
| Total  | 1,410,000         | 237,000          | 120,000              | 118,000  | 237,000             |
| Stocks, end of period, consumers and secondary smelters            | 67,400            | 61,100           | 55,400 <sup>r</sup>  | 52,400   | 52,400              |
| Imports for consumption:   |                   |                  |                      |          |                     |
| Base bullion   | 602               | 108              | 60                   | NA       | 60 <sup>2</sup>     |
| Refined metal  | 271,000           | 41,900           | 24,600               | NA       | 24,600 <sup>2</sup> |
| Exports:   |                   |                  |                      |          |                     |
| Ore and concentrate  | 299,000           | 14,900           | 3,470                | NA       | 3,470 <sup>2</sup>  |
| Bullion  | 199               | --               | --                   | NA       | -- <sup>2</sup>     |
| Wrought and unwrought lead   | 83,300            | 11,300           | 4,460                | NA       | 4,460 <sup>2</sup>  |
| TEL/TML preparations, based on lead compounds                      | 1,180             | 143              | 33                   | NA       | 33 <sup>2</sup>     |
| Scrap (gross weight)   | 43,500            | 12,900           | 1,330                | NA       | 1,330 <sup>2</sup>  |
| Platts Metals Week North American producer price (cents per pound) | 108.91            | 110.80           | 121.26               | 121.21   | 121.24              |

<sup>e</sup>Estimated. <sup>p</sup>Preliminary. <sup>r</sup>Revised. NA Not available. -- Zero.

<sup>1</sup>Data are rounded to no more than three significant digits, except prices; may not add to totals shown.

<sup>2</sup>Includes data for January only; February 2011 data were not available at time of publication.

TABLE 2  
MONTHLY AVERAGE LEAD PRICES

|                  | North American<br>producer price<br>¢/lb | London Metal Exchange<br>cash |              | Sterling<br>exchange rate<br>\$/£ |
|------------------|--|-------------------------------|--------------|-----------------------------------|
|                  |  | \$/metric ton                 | £/metric ton |                                   |
| 2010:            |  |                               |              |                                   |
| February         | 110.35                                   | 2,122.45                      | 1,358.72     | 1.562100                          |
| March            | 110.53                                   | 2,171.66                      | 1,443.00     | 1.504961                          |
| April            | 110.88                                   | 2,264.48                      | 1,526.82     | 1.483130                          |
| May              | 109.46                                   | 1,882.18                      | 1,285.55     | 1.464105                          |
| June             | 105.49                                   | 1,703.39                      | 1,154.71     | 1.475168                          |
| July             | 95.11                                    | 1,836.40                      | 1,201.59     | 1.528305                          |
| August           | 95.79                                    | 2,074.77                      | 1,324.67     | 1.566257                          |
| September        | 102.24                                   | 2,183.69                      | 1,403.42     | 1.555982                          |
| October          | 114.73                                   | 2,379.01                      | 1,500.04     | 1.585957                          |
| November         | 120.48                                   | 2,376.10                      | 1,548.70     | 1.597918                          |
| December         | 120.58                                   | 2,411.93                      | 1,509.42     | 1.597918                          |
| January-December | 108.91                                   | 2,147.81                      | 1,393.44     | 1.544861                          |
| 2011:            |  |                               |              |                                   |
| January          | 121.26                                   | 2,600.89                      | 1,647.63     | 1.578565                          |
| February         | 121.21                                   | 2,586.05                      | 1,603.29     | 1.612960                          |
| January-February | 121.24                                   | 2,593.47                      | 1,625.46     | 1.595763                          |

Source: Platts Metals Week.

TABLE 3  
CONSUMPTION OF PURCHASED LEAD-BASE SCRAP<sup>1</sup>

(Metric tons, gross weight)

| Item   | Stocks<br>January 31,<br>2011 | Net<br>receipts | Consumption | Stocks<br>February 28,<br>2011 |
|--|-------------------------------|-----------------|-------------|--------------------------------|
|  |                               |                 |             |                                |
| Battery-lead                                     | 17,800 <sup>r</sup>           | 78,300          | 78,700      | 17,300                         |
| Soft lead  | W                             | W               | W           | W                              |
| Drosses and residues                             | W                             | W               | W           | W                              |
| Other <sup>2</sup>                               | 962 <sup>r</sup>              | 5,500           | 5,510       | 953                            |
| Total  | 18,700 <sup>r</sup>           | 83,800          | 84,200      | 18,200                         |
| Percent change from preceding month <sup>3</sup> | XX                            | -2.7            | -12.6       | -2.5                           |

<sup>r</sup>Revised. W Withheld to avoid disclosing company proprietary data; included with "Other." XX Not applicable.

<sup>1</sup>Data are rounded to no more than three significant digits; may not add to totals shown.

<sup>2</sup>Includes solder, common babbitt, antimonial lead, cable covering, type metals, and other lead-base scrap.

<sup>3</sup>Based on unrounded data; preceding monthly data may have been revised.

TABLE 4  
LEAD, TIN, AND ANTIMONY RECOVERED FROM  
LEAD-BASE SCRAP IN FEBRUARY 2011<sup>1</sup>

(Metric tons)

| Product recovered     | Secondary metal content |     |          |
|-----------------------|-------------------------|-----|----------|
|                       | Lead                    | Tin | Antimony |
| Soft and calcium lead | 51,800                  | --  | --       |
| Remelt lead           | W                       | --  | --       |
| Antimonial lead       | 9,730                   | (2) | (2)      |
| Other <sup>3</sup>    | 32,400                  | (2) | (2)      |
| Total lead-base       | 94,000                  | 128 | 227      |

W Withheld to avoid disclosing company proprietary data; included in "Other."

-- Zero.

<sup>1</sup>Data are rounded to no more than three significant digits; may not add to totals shown.

<sup>2</sup>Withheld to avoid disclosing company proprietary data; included in "Total."

<sup>3</sup>Includes cable lead, lead-base babbitt, solder, type metals, and other products.

TABLE 5  
CONSUMPTION OF LEAD IN THE UNITED STATES<sup>1</sup>

(Metric tons, lead content)

| Use   | 2010                 |                      | 2011               |          |                      |
|---|----------------------|----------------------|--------------------|----------|----------------------|
|   | January-<br>December | January-<br>February | January            | February | January-<br>February |
| Metal products:   |                      |                      |                    |          |                      |
| Ammunition, shot and bullets  | 71,400               | 11,600               | 6,740              | 5,510    | 12,300               |
| Brass and bronze, billet and ingots   | 991                  | 508                  | 281 <sup>r</sup>   | 281      | 562                  |
| Cable covering, power and communication<br>and caulking lead, building construction | 7,430                | 1,140                | 530 <sup>r</sup>   | 626      | 1,160                |
| Casting metals  | 16,000               | 1,920                | 1,190 <sup>r</sup> | 1,190    | 2,380                |
| Sheet lead, pipes, traps and other extruded products                                | 28,000               | 4,740                | 2,150 <sup>r</sup> | 2,150    | 4,290                |
| Solder  | 14,600               | 1,610                | 670                | 670      | 1,340                |
| Storage batteries, including oxides   | 1,190,000            | 202,000              | 101,000            | 101,000  | 202,000              |
| Terne metal, type metal, and other metal products <sup>2</sup>                      | 16,400               | 2,760                | 1,370 <sup>r</sup> | 1,370    | 2,740                |
| Total metal products  | 1,340,000            | 226,000              | 114,000            | 112,000  | 227,000              |
| Other oxides and miscellaneous  | 23,100               | 3,600                | 1,910              | 1,890    | 3,800                |
| Total reported  | 1,360,000            | 230,000              | 116,000            | 114,000  | 231,000              |
| Undistributed <sup>c</sup>  | 40,900               | 6,900                | 3,490              | 3,430    | 6,920                |
| Grand total   | 1,410,000            | 237,000              | 120,000            | 118,000  | 237,000              |

<sup>c</sup>Estimated. <sup>r</sup>Revised.

<sup>1</sup>Data are rounded to no more than three significant digits; may not add to totals shown.

<sup>2</sup>Includes lead consumed in bearing metals, foil, collapsible tubes, annealing, plating, galvanizing, and fishing weights.

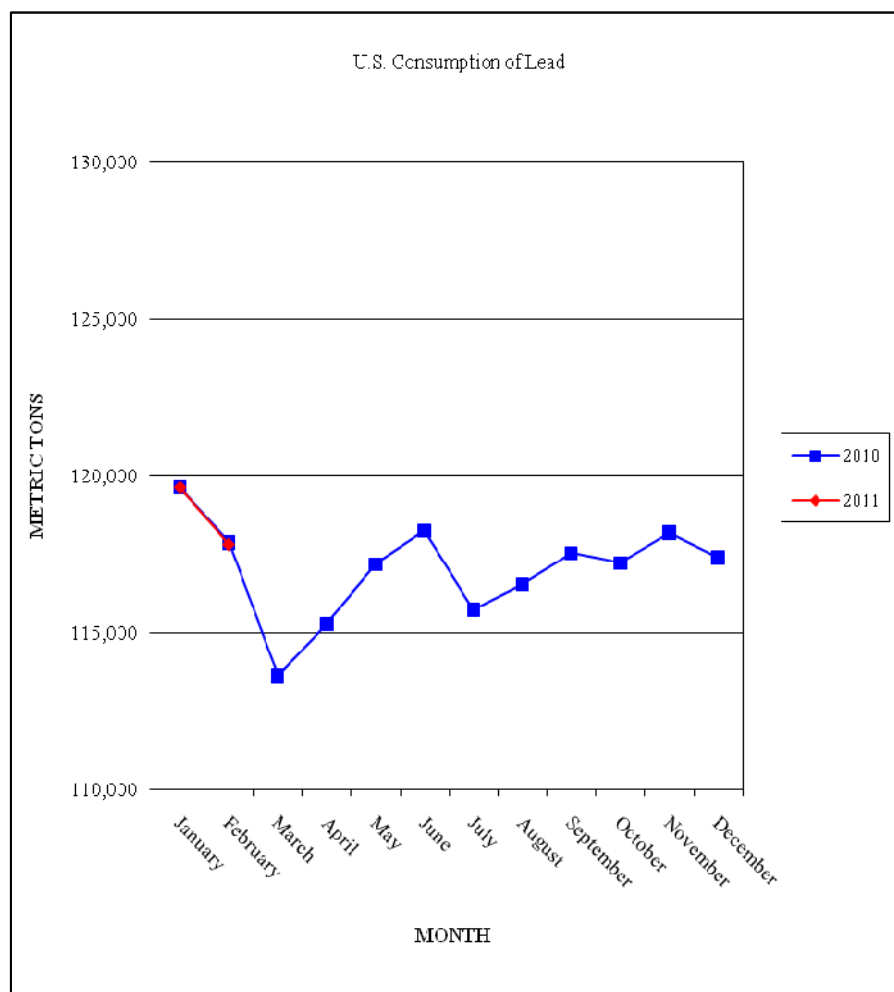


TABLE 6  
CONSUMER AND SECONDARY SMELTER STOCKS, RECEIPTS, AND CONSUMPTION OF LEAD<sup>1</sup>

(Metric tons, lead content)

| Type of material  | Stocks<br>January 31,<br>2011 | Net<br>receipts | Consumption | Stocks<br>February 28,<br>2011 |
|-------------------|-------------------------------|-----------------|-------------|--------------------------------|
| Soft lead         | 33,200 <sup>r</sup>           | 70,400          | 72,100      | 31,500                         |
| Antimonial lead   | 12,500 <sup>r</sup>           | 20,700          | 21,900      | 11,400                         |
| Lead alloys       | W                             | W               | W           | W                              |
| Copper-base scrap | W                             | W               | W           | W                              |
| Total             | 55,400 <sup>r</sup>           | 111,000         | 114,000     | 52,400                         |

<sup>r</sup>Revised. W Withheld to avoid disclosing company proprietary data; included in "Total."

<sup>1</sup>Data are rounded to no more than three significant digits.

TABLE 7  
U.S. EXPORTS OF LEAD, BY CLASS<sup>1</sup>

(Metric tons unless otherwise specified)

|  | 2010       |           |           | 2011      |
|--|------------|-----------|-----------|-----------|
|  | Year       | January   | December  | January   |
| Lead content:  |            |           |           |           |
| Ore and concentrates   | 299,000    | 10,500    | 19,100    | 3,470     |
| Bullion  | 199        | --        | --        | --        |
| Materials excluding scrap                                    | 83,300     | 5,780     | 6,000     | 4,460     |
| TEL/TML preparations, based on lead compounds                | 1,180      | 45        | 18        | 33        |
| Total  | 384,000    | 16,300    | 25,100    | 7,960     |
| Gross weight, scrap  | 43,500     | 6,920     | 1,160     | 1,330     |
| Spent lead-acid batteries, used for starting engines (units) | 15,300,000 | 1,180,000 | 1,610,000 | 1,880,000 |

-- Zero.

<sup>1</sup>Data are rounded to more than three significant digits; may not add to totals shown.

Source: U.S. Census Bureau.

TABLE 8  
U.S. IMPORTS FOR CONSUMPTION BY TYPE OF MATERIALS AND BY COUNTRY OF ORIGIN<sup>1</sup>

(Metric tons, lead content)

| Country of origin        | 2010    |         |          | 2011    |
|--------------------------|---------|---------|----------|---------|
|                          | Year    | January | December | January |
| Ore, matte, etc., Canada | 411     | --      | 411      | --      |
| Base bullion:            |         |         |          |         |
| Canada                   | 404     | --      | 65       | --      |
| Mexico                   | 159     | 33      | 35       | 60      |
| Other                    | 38      | 38      | --       | --      |
| Total                    | 602     | 71      | 100      | 60      |
| Pigs and bars:           |         |         |          |         |
| Canada                   | 237,000 | 17,200  | 21,200   | 21,900  |
| Mexico                   | 29,400  | 3,100   | 2,420    | 2,680   |
| Other                    | 4,880   | 56      | 294      | 37      |
| Total                    | 271,000 | 20,400  | 23,900   | 24,600  |
| Grand total              | 272,000 | 20,400  | 24,400   | 24,700  |

-- Zero.

<sup>1</sup>Data are rounded to no more than three significant digits; may not add to totals shown.

Source: U.S. Census Bureau.